



CFM200M SERIES

200 WATT MEDICAL AC-DC POWER SUPPLY WITH PFC



Features

- * Universal Input Range 90~264Vac
- * 2"x 4" Open Frame Compact Size
- * 160W with Natural Convection for Open Frame Type
- * 180W with Natural Convection for Covered Type
- * No Load Input Power Consumption < 0.3W
- * +12V Fan Output
- * High Efficiency up to 93.5%
- * Meet Class II & Class I



CFM200MXXXC (Covered type)



CFM200MXXX (Open Frame type)

MODEL	VOLTAGE OUTPUT	OUTPUT CURRENT	RIPPLE & NOISE NOTE 1	VOLTAGE ACCURACY NOTE 2	LINE REG. NOTE 3	LOAD REG. NOTE 4	%EFF. (Typ.) NOTE 5
Main Output Voltage							
CFM200M120	+12V	16.67A	150mVp-p	±2.0%	±0.5%	±1%	92%
CFM200M240	+24V	8.33A	240mVp-p	±2.0%	±0.5%	±1%	93.5%
CFM200M480	+48V	4.17A	480mVp-p	±2.0%	±0.5%	±1%	93.5%
Fan Output Voltage							
All	+12V	0.5A NOTE 6	—	—	—	—	—

Typical at 25°C, 230Vac and 60% rated load, unless otherwise specified

Specifications

INPUT SPECIFICATIONS:

AC Input Voltage 90~264Vac
 Frequency 47 to 63Hz
 Inrush Current 100A max. @240Vac
 Leakage Current @ 264Vac 300uA max.

OUTPUT SPECIFICATIONS:

Total Rated Output Power 200W
 Hold-up Time 10ms typ.
 Over Voltage Protection Recycle AC input to restart
 Short Circuit Protection Hiccup mode(Auto Recovery)
 Temperature Coefficient $\pm 0.05\%/^{\circ}\text{C}$

GENERAL SPECIFICATIONS:

Isolation Input to output = 5656VDC
 Operating Temperature - 20 ~ 60°C (see Derating Curve)
 Storage Temperature -40~85°C
 Humidity 93% RH max. Non condensing
 Switching Frequency 85KHz Typical
 MTBF MIL-HDBK-217F, GB, 25°C/115VAC 140Khrs typ.
 Altitude 3000m
 Dimensions
 Open frame versions 4.000x2.000x1.441 Inches(101.60x50.80x36.60mm)
 Covered versions 4.606x2.480x1.535 Inches (117.00x63.00x39.00mm)
 Weight
 Open frame versions 253g (0.558 Pounds)
 Covered versions 314g (0.692 Pounds)

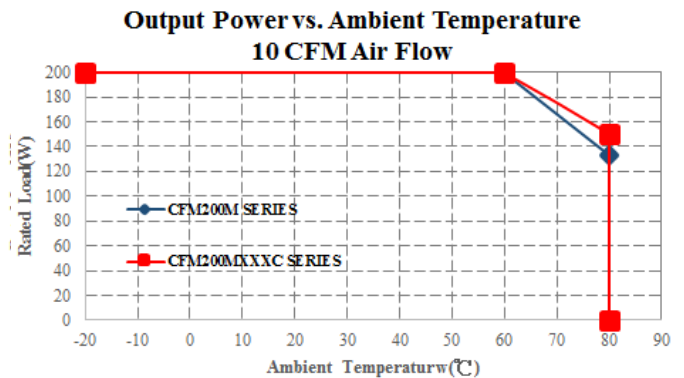
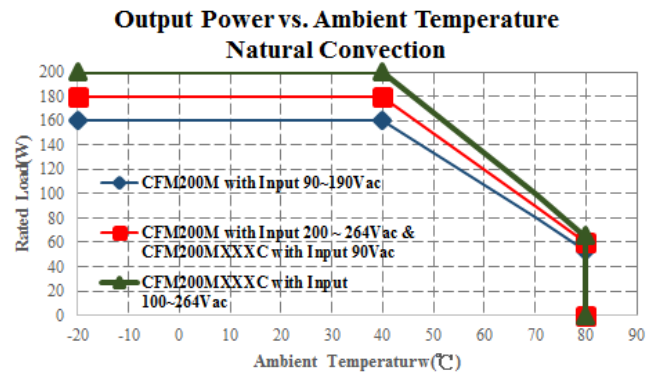
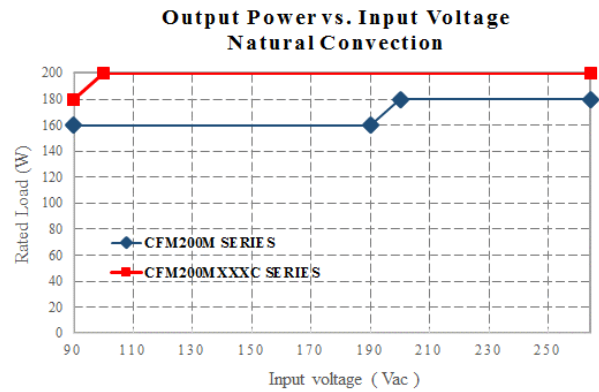
SAFETY AND EMC:

Emission and Immunity EN55011 Class B, IEC61000-3-2)
 IEC61000-3-3, FCC Part 18 Class B(Note 7), IEC61000-4-2
 IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6
 IEC61000-4-8, IEC61000-4-11
 Safety (Medical 3.1rd) IEC60601-1, EN60601-1, UL60601-1

NOTE:

1. Add a 0.1uF ceramic capacitor and a 47uF E.L. capacitor to output for Ripple & Noise measuring @20MHz BW.
2. Voltage accuracy is set at 60% rated load and 25°C Ta.
3. Line regulation is measured from High Line to Low Line with rated load.
4. Load regulation is measured at 60%±40% rated.
5. Typical efficiency at 230 VAC and full load at 25°C.
6. 12V/0.3A with nature convection; 12V/0.5A with 10 CFM air flow, tolerance $\pm 10\%$ at main output 10~100% full load.
7. Need an external 133uH choke at input for Class II type to pass EN55011 Class B.
8. Input connectors wafer with TAIWAN KING PIN TERMINAL PVHI series and mate with JST Housing VHR series and JST SVH-21/41T-P1.1 series crimp terminal or equivalent.
9. Main output connectors for CFM200MXXX with screw terminal type.
10. Fan output connector wafer with TOWNES ENTERPRISE 2001BW series and mate with JST Housing PHR-R5500 series and JST R5503-PT series crimp terminal or equivalent.

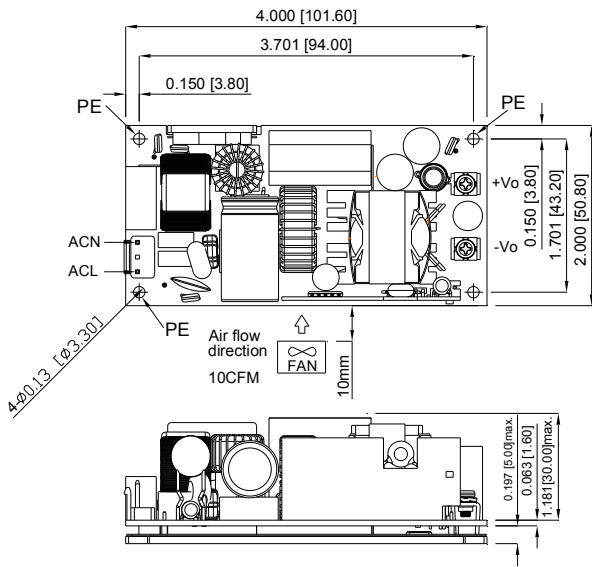
CFM200M Series De-rating Curve



Mechanical Specification

All Dimensions In Inches(mm)
Tolerance Inches:x,xxx=±0.02
Millimeters:x,xx=±0.5

CFM200MXXX



CFM200MXXXC

